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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,437	03/02/2002	Kimmo Laiho	004770.00033	3461
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EXAMINER				
NGUYEN, TU X				
ART UNIT		PAPER NUMBER		
2618				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/087,437

Applicant(s)

LAIHO ET AL.

Examiner

TU X. NGUYEN

Art Unit

2618

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9,12-17,19,20,22-31,34,36-38,40-50,52 and 53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,9,12-17,19,20,22-31,34,36-38,40-50,52 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-846)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, dated 2/21/08, have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 46-53, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claim 46 contains subject matter a higher bit rate than the rate at which said streaming information is received from the service provider which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-9, 12, 14-17, 19-20, 22-25, 27-31, 34, 36-38, 40-45, are rejected under 35 U.S.C. 103(a) as being unpatentable over Mansfield (US Patent 6477382).

Regarding claim 1, Mansfield a method comprising: receiving, at a mobile terminal, a digital broadcast transmission burst in a time-slicing signal, the buffered data corresponding to a first portion of an information stream, said digital broadcast transmission burst having a duration smaller than the duration of said first portion of said information stream (see col.4 lines 34-42, digital data is deliver as a packet, divides the data packet into sequence and transmits the message frames in assigned time slots); powering-up a digital broadcast receiver in the mobile terminal in synchronicity with the transmission of said digital broadcast transmission burst such that the mobile terminal is powered-up when said digital broadcast transmission burst is being received (see col.3 line 65 through col.4 line 33).

Mansfield may not specifically disclose a buffer for receiving the information at the transmitting system and a buffer for receiving the time-slice information at the receiving system, Mansfield suggests that such buffering is performed in the communications system by disclosing certain "buffer capacity" considerations (e.g., see col. 16, lines 48-55). Furthermore, Mansfield teaches determining when a next

message is to be sent (e.g., see col. 12, lines 9-34) and uses an example of up to 128 frames which may elapse until the next message is sent which suggests that buffering is performed to store the messages prior to reaching the scheduled sending time frame. Additionally, Mansfield teaches at both the transmitting and the receiving systems, comparing, for example, the message number of the ARQ field of a received message with that of a previously received message to determine whether to ignore the message (see col. 20, lines 8-39) which suggests that buffering is performed at both the transmitting and receiving systems. Still further, buffering is well known in the art of packet burst transmissions in multiple access communications systems. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to use a buffer for receiving the information at the

transmitting system and a buffer for receiving the time-slice information at the receiving system as suggested by Mansfield by disclosing that there are certain "buffer capacity" considerations, and by teaching storing the messages prior to reaching the scheduled sending time frame and by teaching comparing elements of a received message with those of a previously received message.

Regarding claim 2, Mansfield fails to disclose the buffered data is transmitted from a service input buffer comprising at least one member of the group consisting of: a first-in-first-out (FIFO) buffer, an elastic buffer, a ring buffer, and a dual buffer having separate input and output sections; however It would have been obvious to one of ordinary skill in the art at the time the invention was made a type of memory such as RAM is FIFO buffer or a ring buffer hard drive.

Regarding claim 3, Mansfield discloses a predetermined amount of said information stream and an amount of said information stream received during a predetermined time interval (see col.3 line 65 through col.4 line 33).

Regarding claims 4, 20, 22, 37-38 Mansfield disclose said powering-up said receiver occurs a specified interval of time prior to said receiving (see col.10 lines 24-35).

Regarding claims 5, 23, Mansfield discloses said specified interval of time comprises a member of the group consisting of: a bit-rate adaptation time, a receiver switch-on time (see col.10 lines 24-35), and a receiver acquisition time.

Regarding claims 8, 24, 36, Mansfield discloses powering-down said receiver a predefined interval of time subsequent to said powering-up said receiver (see col.10 lines 1-10).

Regarding claims 9, 25, Mansfield discloses said predefined interval of time comprises a time interval greater than said duration of said transmission burst (see col.10 lines 24-35, since the device wakes up earlier than the assigned time slot, the duration of the receiving data plus the earlier wake up time is greater than duration of said transmission burst).

Regarding claims 12, 41, Mansfield discloses the buffered data is encapsulated using a multi-protocol encapsulator to form encapsulated data (see col.7 lines 50-52).

Regarding claims 14-15, 28-29, 40, Mansfield fail to disclose stripping encapsulation from said transmission burst to form received data; however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to strip out the header from data frame to intended destination to obtain the original user data.

Regarding claims 16 and 43, Mansfield discloses receiving a second buffered data as a second digital broadcast transmission burst, said second digital broadcast transmission burst having a duration smaller than the duration of said portion of said second information

stream, wherein the second buffered data comprises a portion of a second information stream (see fig.1, element 103, see col.4 lines 34-42).

Regarding claims 17 and 44-45, Mansfield discloses the transmission burst and said second transmission burst are multiplexed to produce a time-division multiplexed signal (see col.4 lines 1-2).

Regarding claim 19, Mansfield discloses an apparatus comprising: a processor; and memory configured to store computer readable instructions that, when executed by the processor, cause the processor to perform (see col.10 lines 1-22) a method comprising: a digital broadcast transmission burst in a time-slicing signal, the buffered data corresponding to a first portion of an information stream, said digital broadcast transmission burst having a duration smaller than the duration of said first portion of said information stream (see col.4 lines 34-42); powering-up a digital broadcast receiver in synchronicity with the transmission of said digital broadcast transmission burst such that the apparatus is powered-up when said digital broadcast transmission burst is being received (see col.3 line 65 through col.4 line 33).

Mansfield may not specifically disclose a buffer for receiving the information at the transmitting system and a buffer for receiving the time-slice information at the receiving system, Mansfield suggests that such buffering is performed in the communications system by disclosing certain "buffer

capacity" considerations (e.g., see col. 16, lines 48-55).

Furthermore, Mansfield teaches determining when a next message is to be sent (e.g., see col. 12, lines 9-34) and uses an example of up to 128 frames which may elapse until the next message is sent which suggests that buffering is performed to store the messages prior to reaching the scheduled sending time frame. Additionally, Mansfield teaches at both the transmitting and the receiving systems, comparing, for example, the message number of the ARQ field of a received message with that of a previously received message to determine whether to ignore the message (see col. 20, lines 8-39) which suggests that buffering is performed at both the transmitting and receiving systems. Still further, buffering is well known in the art of packet burst transmissions in multiple access communications systems. Thus, at the time of the

invention it would have been obvious to one of ordinary skill in the art to use a buffer for receiving the information at the transmitting system and a buffer for receiving the time-slice information at the receiving system as suggested by Mansfield by disclosing that there are certain "buffer capacity" considerations, and by teaching storing the messages prior to reaching the scheduled sending time frame and by teaching comparing elements of a received message with those of a previously received message.

Regarding claim 27, Mansfield discloses the digital broadcast receiver is powered-down an incremental period of time subsequent to the transmission of said digital broadcast transmission burst (see col.13 line 50 through col.14 line 30).

Regarding claims 30, 42, Mansfield discloses said stream filter comprises an Internet protocol (IP) filter (see fig.4).

Regarding claim 31, Mansfield discloses everything as claim 1 above, more specifically disclose a transmitter (see abstract).

Regarding claim 34, Mansfield discloses at least one service is provided by the information service provider via at least one information stream (see col.4 lines 34-42).

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mansfield (US Patent 6477382) in view of Anandakumar et al. (US Patent 6574213).

Regarding claim 26, Mansfield fails to disclose a flag indicating an almost-full byte count in said input buffer.

Anandakumar et al. disclose a flag indicating an almost-full byte count in said input buffer (see col.37 lines 31-32). Therefore, it would have been obvious at the time the invention was made in order to modify the system of Mansfield with the above teaching of Anandakumar et al. to provide a flag indication of memory is full or empty to perform the next operation.

Claims 13 and 46-53, are rejected under 35 U.S.C. 103(a) as being unpatentable over Mansfield (US Patent 6477382) in view of Applicant admitted prior art.

Regarding claims 13 and 46-53, Mansfield fail to disclose standard EN 301192.

The Applicant admitted prior art disclose standard EN 301192 (see par.003). Therefore, it would have been obvious at the time the invention was made in order to modify the system of Mansfield with the above teaching of Applicant admitted prior art to provide system currently in use in Europe and elsewhere world-wide is Digital Video Broadcast (DVB) which provides capabilities for delivering data in addition to televisual content.

Regarding claim 46, Mansfield discloses a method comprising: receiving streaming information from a service provider; and transmitting, from a digital broadcast

transmitter, said streaming information as a digital I broadcast transmission burst as a time sliced signal to a remote mobile terminal, wherein the transmission is synchronized with a powering-up of the remote mobile terminal (see col.4 lines 34-42 and col.3 lines 65 through col.4 line 33).

Mansfield discloses a backhaul connection between plurality of service providers and the base station (see col.8 lines 59-60); however, Mansfield fails to disclose transmit at a higher bit rate than the rate at which said streaming information is received from the service provider.

The Applicant admitted prior art disclose the streaming signal exhibits the same transmission rate of 100Kbit/sec as the information signal originating at the service provider (see par.19). Therefore, if multiple service providers having the backhaul link to the base station, it would have been obvious the transmission rate of service providers, simultaneously transmission, to the base station is lower than the rate of base station transmitted to the terminals.

Regarding claims 47-48, the modified Mansfield discloses receiving second streaming information supplied by a second service provider; and encapsulating said second streaming information (see Mansfield, col.7 lines 50-52).

Regarding claim 49, the modified Mansfield discloses a multiplexer for multiplexing said digital broadcast transmission burst and said second transmission burst such that said transmitter broadcasts said digital broadcast transmission burst and said second transmission burst as a time-division multiplexed signal (see col.4 lines 1-2).

Regarding claim 50, the modified Mansfield discloses the digital broadcast transmission burst is transmitted a predefined period of time prior to the powering-up of the remote mobile terminal (see Mansfield, col.10 lines 24-35).

Regarding claim 51, the modified Mansfield discloses the streaming information comprises multimedia content (see Applicant admitted prior art, par.03).

Regarding claim 53, the modified Mansfield discloses 53. (Previously Presented) The method of claim 46, wherein a size of the digital broadcast transmission burst is defined independently of a receiver bandwidth allocation (see col.3 lines 59-64).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2618

/Tu X Nguyen/

Patent Examiner, Art Unit 2618

5/23/08